

order 10811

29 Nov



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

006342

647.1306
Job Sheet 185780



Part No: 647.1306

Job Qty: 1 ea

Part Name: EC145 Cable Cutter System Fixed Provisions U Channel Compatible



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 11/2/18

Job Tracking No:

Due Date: 11/29/18

Created By: Marie Lajeunesse

Type: SOLD

Description:

Note: DWG REV D IPP REV:A NEW ISSUE 13.07.16 JLM VERIFIED BY:DD IPP REV:C 14.05.05 AS PER DWG
REV C1 DD VERF:JLM IPP REV:D 14.07.31 AS PER ECN C2 DD VERF:JLM

Ship Via:

5126795

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup Hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	1 Ea	11/29/18	11/29/18	0.00	0.00	Start Up Stores/Pkg-2		NOV 12 2018
110	Packaging	1 pcs	11/29/18	11/29/18	0.00	0.00	Packaging1-1		NOV 19 2018
120	QC	1 pcs	11/29/18	11/29/18	0.00	0.00	QC4		NOV 19 2018
130	Packaging	1 pcs	11/29/18	11/29/18	0.00	0.00	Packaging3-1		NOV 19 2018
135	DC	1 pcs	11/29/18	11/29/18	0.00	0.00	DC		NOV 19 2018
140	QC21-FG	1 Ea	11/29/18	11/29/18	0.00	0.00	QC21		NOV 19 2018

Part Op 130 - Identify and pack for shipping as per PPP 647.1306 Location: _____ EXPIRY DATE OF: RTV Loctite 598: _____
Descriptions: _____ MAGNOBOND 6398 PART 1: _____ MAGNOBOND 6398 PART 2: _____
SEALANT PR-1425: ***INDICATE ON BOX EXPIRY DATE OF RTV, MAGNOBOND PART1, MAGNOBOND PART2 AND SEALANT PR-1425 ***
135 - Photocopy bluefile & type labels per PPP 647.1306
140 - *** Enter exp. date in lot maintenance for RTV loctite 598, MAGNOBOND PART1, MAGNOBOND PART2 AND SEALANT PR-1425***

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
26R16-1	Camloc Receptacle	2 Ea (2 ea)	90-Start up Operation	5022852
26S8-11	Camloc Stud	2 Ea (2 ea)	90-Start up Operation	5016905
600.0990	Magnabond 6398 Part A Size 112 ml	1 Ea (1 ea)	90-Start up Operation	5040326
600.0991	Magnabond 6398 Part B Size 112 ml	1 Ea (1 ea)	90-Start up Operation	5040326
600.1012	Sealant PR1425B2 (#654 sem)	1 pcs (1 ea)	90-Start up Operation	5075327
601.2045	RTV (LOCTITE 598)	1 Ea (1 ea)	90-Start up Operation	5032768
601.3005	2600-L-W Camloc Retainer	2 Ea (2 ea)	90-Start up Operation	F158642
601.3011	P-Seal	3 ft (3 ea)	90-Start up Operation	5006166
647.1602	Doubler Assembly	1 Ea (1 ea)	90-Start up Operation	FM130388
647.1810	Nose Door Doubler	1 Ea (1 ea)	90-Start up Operation	5084907
647.1811	Spacer	2 Ea (2 ea)	90-Start up Operation	FM130388-23
647.1812	Shim	13 Ea (13 ea)	90-Start up Operation	FM130388-14
647.1813	Angle	2 Ea (2 ea)	90-Start up Operation	592074
647.1814	Gusset LH	1 Ea (1 ea)	90-Start up Operation	5012454
647.1815	Gusset RH	1 Ea (1 ea)	90-Start up Operation	FM130388-20
647.1816	Support LH	1 Ea (1 ea)	90-Start up Operation	5040326
647.1817	Support RH	1 Ea (1 ea)	90-Start up Operation	FM125082

10/19=
01/19
06/19

5121187
5090709

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION	AGAINST DEPARTMENT/PROCESS			
	Rework ☐	Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐
	Scrap ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐
	Use-as-is ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐
	Suspected Unapproved ☐	Large Fab ☐	Composite ☐	Supplier ☐	

Date : _____	Step #: _____	QTY Effective : _____	MRB (QSI042) Approval _____
--------------	---------------	-----------------------	-----------------------------

Description Work Order Deviation	Disposition
----------------------------------	-------------

Job No: 185780
Mfg Date: 11/12/18
Packaging
Change No: _____
Operation: _____
Revision: _____
Serial No/Batch: S126795
PART NO: 647.1306
EC145 Cable Cutter System Fixed Provisions U Channel Compatible

Root Cause			
Environment ☐	No Re-verification ☐	Pressure/Force ☐	
Design ☐	Operator ☐	Bending ☐	
Doc/Data ☐	Offset/Setup ☐	Centre Not Con ☐	
Equip/Tooling ☐	Supplier ☐	Cracks ☐	
Handling/Pre ☐	Training ☐	Crimp/Kink/Rip ☐	
Material ☐	Use for Testing ☐	Cuffs ☐	
Internal Transport ☐	Poor Information ☐	Crushing ☐	
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	
Past Expiry Date ☐	Manufacturing Process ☐		
Misidentified ☐	Past Due ☐		
		OTHER : _____	

Container No: S126795
DART Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA
TEL: 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com

☐ Cut Too Short	☐ Mislabeled	☐ Finish
☐ Instructions Incomplete/Unclear	☐ Fit/Function	☐ Misread
☐ Drill Holes	☐ Misaligned/off center	☐ Turning Sequence

647.1818	Nose Door Spacer	1 Ea (1 ea)	90-Start up Operation	FM130388-17
647.1910	Clip	4 Ea (4 ea)	90-Start up Operation	F92226
647.1911	Bracket RH	1 Ea (1 ea)	90-Start up Operation	F92227
647.1912	Bracket LH	1 Ea (1 ea)	90-Start up Operation	F92228
647.1913	Tee	1 Ea (1 ea)	90-Start up Operation	5084913
647.1914	Bracket	1 Ea (1 ea)	90-Start up Operation	5084914
647.1915	Support Angle	1 Ea (1 ea)	90-Start up Operation	5100793
647.2112	Upper U Channel	1 Ea (1 ea)	90-Start up Operation	5126019
647.2201	Cross Assembly	1 Ea (1 ea)	90-Start up Operation	F162949
647.2510	Sleeve	4 Ea (4 ea)	90-Start up Operation	F25082-55
647.2511	Nut	4 Ea (4 ea)	90-Start up Operation	FM130388-19
647.3201	Grounding Cable Assembly	1 Ea (1 ea)	90-Start up Operation	5022877
AN3-4A	Bolt	2 Ea (2 ea)	90-Start up Operation	3060063
AN4CH6A	Bolt	1 Ea (1 ea)	90-Start up Operation	F123525
CCR264SS-3-03	Cherry Rivet	12 Ea (12 ea)	90-Start up Operation	5099729
CCR264SS3-04	Rivet	12 Ea (12 ea)	90-Start up Operation	5108574
CCR274SS-3-03	Rivet	4 Ea (4 ea)	90-Start up Operation	F123785-0
CR3212-4-3	Cherry Rivet	22 Ea (22 ea)	90-Start up Operation	50980338053949
CR3213-4-2	Cherry Rivet	2 Ea (2 ea)	90-Start up Operation	5019424
CR3213-4-4	Rivet, Cherry	4 Ea (4 ea)	90-Start up Operation	5049830
CR3213-4-5	Rivet	8 Ea (8 ea)	90-Start up Operation	5019315
CR3213-4-6	Rivet	11 Ea (11 ea)	90-Start up Operation	5019369
CR3213-4-7	Rivet	16 Ea (16 ea)	90-Start up Operation	F123785
CR3213-4-8	Rivet	12 Ea (12 ea)	90-Start up Operation	5067267
CR3213-6-6	Rivet (601.2995)	8 Ea (8 ea)	90-Start up Operation	F123785-45
MS21042-08	Use Ms21042L08	1 Ea (1 ea)	90-Start up Operation	5100409
MS21042-3	Nut	27 Ea (27 ea)	90-Start up Operation	5108577
MS21047-3	Nut Plate	12 Ea (12 ea)	90-Start up Operation	5084882x8 5103943 x4
MS21266-2N	Grommet	1 Ea (1 ea)	90-Start up Operation	F123900
MS24694-C52	Screw	10 Ea (10 ea)	90-Start up Operation	5067269
MS27039-08-07	Screw	1 Ea (1 ea)	90-Start up Operation	5044221
MS27039-1-07	Screw	3 Ea (3 ea)	90-Start up Operation	5079112
MS27039-1-10	Screw	6 Ea (6 ea)	90-Start up Operation	5071834
MS27039-1-15	Screw	4 Ea (4 ea)	90-Start up Operation	5112435
MS27039-1-17	Screw (601.1954)	2 Ea (2 ea)	90-Start up Operation	FM127831-4
MS27039-1-20	Screw	4 Ea (4 ea)	90-Start up Operation	FM130126
MS27039C1-06	Screw (601.2459)	18 Ea (18 ea)	90-Start up Operation	F123525-30
NAS1149F0332P	Washer	62 Ea (62 ea)	90-Start up Operation	5109991
NAS1149FN832P	Washer	2 Ea (2 ea)	90-Start up Operation	5100408
NAS1834C3-300	Insert	2 Ea (2 ea)	90-Start up Operation	F153859

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
90-Start up Operation	26R16-1	2	52	0
	26S8-11	2	62	0
	600.0990	1	15	0
	600.0991	1	13	0
	600.1012	1	26	0
	601.2045	1	23	0
	601.3005	2	0	0
	601.3011	3	139	0
	647.1602	1	9	0
	647.1810	1	45	0
	647.1811	2	66	0
	647.1812	13	148	0
	647.1813	2	34	0
	647.1814	1	48	0
	647.1815	1	36	0
	647.1816	1	15	0
	647.1817	1	14	0
	647.1818	1	57	0
	647.1910	4	31	0
	647.1911	1	5	0
	647.1912	1	4	0
	647.1913	1	48	0

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width: 100%; border: none;"> <tr> <td style="width: 15%;">Skid-tube ☐</td> <td style="width: 15%;">Cross tube ☐</td> <td style="width: 15%;">Water Jet ☐</td> <td style="width: 15%;">Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>				Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐																																																	
Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐																																																																		
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐																																																																		
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐																																																																		
Large Fab ☐	Composite ☐	Supplier ☐																																																																			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval																																																																	
Description Work Order Deviation		Disposition		Completed By																																																																	
				Lead hand / Supervisor Approval Verification																																																																	
				QC / QA Coordinator Approval																																																																	
Root Cause <table style="width: 100%; border: none;"> <tr> <td style="width: 15%;">Environment ☐</td> <td style="width: 15%;">No Re-verification ☐</td> </tr> <tr> <td>Design ☐</td> <td>Operator ☐</td> </tr> <tr> <td>Doc/Data ☐</td> <td>Offset/Setup ☐</td> </tr> <tr> <td>Equip/Tooling ☐</td> <td>Supplier ☐</td> </tr> <tr> <td>Handling/Pre ☐</td> <td>Training ☐</td> </tr> <tr> <td>Material ☐</td> <td>Use for Testing ☐</td> </tr> <tr> <td>Internal Transport ☐</td> <td>Poor Information ☐</td> </tr> <tr> <td>Tribal Knowledge ☐</td> <td>Rushing ☐</td> </tr> <tr> <td>LOA ☐</td> <td>Product Improvement ☐</td> </tr> <tr> <td>Substation ☐</td> <td>Process Improvement ☐</td> </tr> <tr> <td>Past Expiry Date ☐</td> <td>Manufacturing Process ☐</td> </tr> <tr> <td>Misidentified ☐</td> <td>Past Due ☐</td> </tr> </table>		Environment ☐	No Re-verification ☐	Design ☐	Operator ☐	Doc/Data ☐	Offset/Setup ☐	Equip/Tooling ☐	Supplier ☐	Handling/Pre ☐	Training ☐	Material ☐	Use for Testing ☐	Internal Transport ☐	Poor Information ☐	Tribal Knowledge ☐	Rushing ☐	LOA ☐	Product Improvement ☐	Substation ☐	Process Improvement ☐	Past Expiry Date ☐	Manufacturing Process ☐	Misidentified ☐	Past Due ☐	FAULT CATEGORY <table style="width: 100%; border: none;"> <tr> <td style="width: 15%;">Pressure/Forced ☐</td> <td style="width: 15%;">Temperature/Cure ☐</td> <td style="width: 15%;">Power Loss/Surge ☐</td> <td style="width: 15%;">Positioned Wrong ☐</td> </tr> <tr> <td>Bending ☐</td> <td>Set-up ☐</td> <td>Folio/Program ☐</td> <td>Outside Dimensions ☐</td> </tr> <tr> <td>Centre Not Concentric ☐</td> <td>BOM/Route ☐</td> <td>Grain ☐</td> <td>Over/Under tolerance ☐</td> </tr> <tr> <td>Cracks ☐</td> <td>Broken/Damage/Defect ☐</td> <td>Weld ☐</td> <td>Part Incorrect ☐</td> </tr> <tr> <td>Crimp/Kink/Ripple/Wave ☐</td> <td>Inspection Incomplete/Unqualified ☐</td> <td>Wrong Stock Pulled ☐</td> <td>Part Lost/Missing ☐</td> </tr> <tr> <td>Cuffs ☐</td> <td>Contamination ☐</td> <td>Out of Sequence ☐</td> <td>Part Moved ☐</td> </tr> <tr> <td>Crushing ☐</td> <td>Countersink ☐</td> <td>Off-set ☐</td> <td>Drawing ☐</td> </tr> <tr> <td>Heat Treat ☐</td> <td>Cut Too Short ☐</td> <td>Mislabeled ☐</td> <td>Finish ☐</td> </tr> <tr> <td>Wave/Twist in Tube ☐</td> <td>Instructions Incomplete/Unclear ☐</td> <td>Fit/Function ☐</td> <td>Misread ☐</td> </tr> <tr> <td>Marks/Chatter ☐</td> <td>Drill Holes ☐</td> <td>Misaligned/off center ☐</td> <td>Turning Sequence ☐</td> </tr> </table>				Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐
Environment ☐	No Re-verification ☐																																																																				
Design ☐	Operator ☐																																																																				
Doc/Data ☐	Offset/Setup ☐																																																																				
Equip/Tooling ☐	Supplier ☐																																																																				
Handling/Pre ☐	Training ☐																																																																				
Material ☐	Use for Testing ☐																																																																				
Internal Transport ☐	Poor Information ☐																																																																				
Tribal Knowledge ☐	Rushing ☐																																																																				
LOA ☐	Product Improvement ☐																																																																				
Substation ☐	Process Improvement ☐																																																																				
Past Expiry Date ☐	Manufacturing Process ☐																																																																				
Misidentified ☐	Past Due ☐																																																																				
Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐																																																																		
Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐																																																																		
Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐																																																																		
Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐																																																																		
Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐																																																																		
Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐																																																																		
Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐																																																																		
Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐																																																																		
Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐																																																																		
Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐																																																																		
OTHER : ☐																																																																					

647.1914	1	42	0
647.1915	1	42	0
647.2112	1	0	0
647.2201	1	7	0
647.2510	4	52	0
647.2511	4	20	0
647.3201	1	9	0
AN3-4A	2	366	0
AN4CH6A	1	13	0
CCR264SS-3-03	12	554	0
CCR264SS3-04	12	140	0
CCR274SS-3-03	4	22	0
CR3212-4-3	22	54	0
CR3213-4-2	2	130	0
CR3213-4-4	4	626	0
CR3213-4-5	8	178	0
CR3213-4-6	11	119	0
CR3213-4-7	16	150	0
CR3213-4-8	12	89	0
CR3213-6-6	8	240	0
MS21042-08	1	1	0
MS21042-3	27	241	0
MS21047-3	12	472	0
MS21266-2N	1	8	0
MS24694-C52	10	130	0
MS27039-08-07	1	260	0
MS27039-1-07	3	205	0
MS27039-1-10	6	137	0
MS27039-1-15	4	369	0
MS27039-1-17	2	63	0
MS27039-1-20	4	105	0
MS27039C1-06	18	57	0
NAS1149F0332P	62	2,063	0
NAS1149FN832P	2	2,779	0
NAS1834C3-300	2	128	0

Part Specifications

Specifications could not be found.

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td style="border: none;"></td> </tr> </table>				Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐																																																
Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐																																																																	
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐																																																																	
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐																																																																	
Large Fab ☐	Composite ☐	Supplier ☐																																																																		
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval																																																																
Description Work Order Deviation		Disposition		Completed By																																																																
				Lead hand / Supervisor Approval Verification																																																																
				QC / QA Coordinator Approval																																																																
Root Cause <table style="width:100%; border: none;"> <tr> <td style="border: none;">Environment ☐</td> <td style="border: none;">No Re-verification ☐</td> </tr> <tr> <td style="border: none;">Design ☐</td> <td style="border: none;">Operator ☐</td> </tr> <tr> <td style="border: none;">Doc/Data ☐</td> <td style="border: none;">Offset/Setup ☐</td> </tr> <tr> <td style="border: none;">Equip/Tooling ☐</td> <td style="border: none;">Supplier ☐</td> </tr> <tr> <td style="border: none;">Handling/Pre ☐</td> <td style="border: none;">Training ☐</td> </tr> <tr> <td style="border: none;">Material ☐</td> <td style="border: none;">Use for Testing ☐</td> </tr> <tr> <td style="border: none;">Internal Transport ☐</td> <td style="border: none;">Poor Information ☐</td> </tr> <tr> <td style="border: none;">Tribal Knowledge ☐</td> <td style="border: none;">Rushing ☐</td> </tr> <tr> <td style="border: none;">LOA ☐</td> <td style="border: none;">Product Improvement ☐</td> </tr> <tr> <td style="border: none;">Substation ☐</td> <td style="border: none;">Process Improvement ☐</td> </tr> <tr> <td style="border: none;">Past Expiry Date ☐</td> <td style="border: none;">Manufacturing Process ☐</td> </tr> <tr> <td style="border: none;">Misidentified ☐</td> <td style="border: none;">Past Due ☐</td> </tr> </table>		Environment ☐	No Re-verification ☐	Design ☐	Operator ☐	Doc/Data ☐	Offset/Setup ☐	Equip/Tooling ☐	Supplier ☐	Handling/Pre ☐	Training ☐	Material ☐	Use for Testing ☐	Internal Transport ☐	Poor Information ☐	Tribal Knowledge ☐	Rushing ☐	LOA ☐	Product Improvement ☐	Substation ☐	Process Improvement ☐	Past Expiry Date ☐	Manufacturing Process ☐	Misidentified ☐	Past Due ☐	FAULT CATEGORY <table style="width:100%; border: none;"> <tr> <td style="border: none;">Pressure/Forced ☐</td> <td style="border: none;">Temperature/Cure ☐</td> <td style="border: none;">Power Loss/Surge ☐</td> <td style="border: none;">Positioned Wrong ☐</td> </tr> <tr> <td style="border: none;">Bending ☐</td> <td style="border: none;">Set-up ☐</td> <td style="border: none;">Folio/Program ☐</td> <td style="border: none;">Outside Dimensions ☐</td> </tr> <tr> <td style="border: none;">Centre Not Concentric ☐</td> <td style="border: none;">BOM/Route ☐</td> <td style="border: none;">Grain ☐</td> <td style="border: none;">Over/Under tolerance ☐</td> </tr> <tr> <td style="border: none;">Cracks ☐</td> <td style="border: none;">Broken/Damage/Defect ☐</td> <td style="border: none;">Weld ☐</td> <td style="border: none;">Part Incorrect ☐</td> </tr> <tr> <td style="border: none;">Crimp/Kink/Ripple/Wave ☐</td> <td style="border: none;">Inspection Incomplete/Unqualified ☐</td> <td style="border: none;">Wrong Stock Pulled ☐</td> <td style="border: none;">Part Lost/Missing ☐</td> </tr> <tr> <td style="border: none;">Cuffs ☐</td> <td style="border: none;">Contamination ☐</td> <td style="border: none;">Out of Sequence ☐</td> <td style="border: none;">Part Moved ☐</td> </tr> <tr> <td style="border: none;">Crushing ☐</td> <td style="border: none;">Countersink ☐</td> <td style="border: none;">Off-set ☐</td> <td style="border: none;">Drawing ☐</td> </tr> <tr> <td style="border: none;">Heat Treat ☐</td> <td style="border: none;">Cut Too Short ☐</td> <td style="border: none;">Mislabeled ☐</td> <td style="border: none;">Finish ☐</td> </tr> <tr> <td style="border: none;">Wave/Twist in Tube ☐</td> <td style="border: none;">Instructions Incomplete/Unclear ☐</td> <td style="border: none;">Fit/Function ☐</td> <td style="border: none;">Misread ☐</td> </tr> <tr> <td style="border: none;">Marks/Chatter ☐</td> <td style="border: none;">Drill Holes ☐</td> <td style="border: none;">Misaligned/off center ☐</td> <td style="border: none;">Turning Sequence ☐</td> </tr> </table>			Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐
Environment ☐	No Re-verification ☐																																																																			
Design ☐	Operator ☐																																																																			
Doc/Data ☐	Offset/Setup ☐																																																																			
Equip/Tooling ☐	Supplier ☐																																																																			
Handling/Pre ☐	Training ☐																																																																			
Material ☐	Use for Testing ☐																																																																			
Internal Transport ☐	Poor Information ☐																																																																			
Tribal Knowledge ☐	Rushing ☐																																																																			
LOA ☐	Product Improvement ☐																																																																			
Substation ☐	Process Improvement ☐																																																																			
Past Expiry Date ☐	Manufacturing Process ☐																																																																			
Misidentified ☐	Past Due ☐																																																																			
Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐																																																																	
Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐																																																																	
Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐																																																																	
Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐																																																																	
Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐																																																																	
Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐																																																																	
Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐																																																																	
Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐																																																																	
Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐																																																																	
Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐																																																																	
OTHER :																																																																				

1 2 3 4 5 6 7 8

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF DART AEROSPACE. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF DART AEROSPACE IS PROHIBITED.

NOTES: UNLESS OTHERWISE SPECIFIED

1 AFTER INSTALLATION, APPLY F/N 73 A/R TO FILL GAPS AND FILLET EDGES

2. APPLY F/N 74 TO FAYING SURFACES

3 AT CUSTOMERS OPTION, INSTALL F/N 77 BY MATCH DRILLING ONTO F/N 1

4 INSTALL FOR 647.1301, 647.1302.

5 INSTALL FOR 647.1304, 647.1305.

6 APPLICABLE WHEN EUROCOPTER P/N 145-250014.11 IS INSTALLED WITH EUROCOPTER CABLE CUTTER FIXED PROVISIONS.

7 APPLICABLE WHEN REPLACING EUROCOPTER P/N 145-250074.11

8 INSTALL WITH:
647.1304
647.1305
647.1307
647.1308

REFERENCE ONLY

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
N/C	LAST PRODUCTION REVISION: FIG		N/C
N/C	INITIAL RELEASE	08/05/09	P. BRAYO
A	INCORPORATED ECH 02042, 03020, 03048	01/25/11	P. BRAYO
B	INCORPORATED ECH 03919	07/05/10	P. BRAYO
C	INCORPORATED ECH 04069	09/13/10	P. BRAYO
D	INCORPORATED ECH 04485, 045921 & 04976	04/17/10	P. BRAYO
E	INCORPORATED ECH 05950	03/30/10	P. BRAYO

1		1	1		1	1		1	14	647.1817	SUPPORT, RH		
1		1	1		1	1		1	13	647.1912	BRACKET, LH		
1		1	1		1	1		1	12	647.1911	BRACKET, RH		
	8	8		8	8		8	8	11	647.0112	STRUT BRACKET		
							1	1	10	647.2110	LOWER RAIL		
						1		1	9	647.2111	UPPER RAIL		
	1	1		1	1		1	1	8	647.1610	WIPER DEFLECTOR, FWD		
	1	1		1	1		1	1	7	647.1601	WIPER DEFLECTOR ASSY, AFT		
							2	2	6	647.1701	SKID DEFLECTOR ASSY		
1		1	1		1	1		1	5	647.3201	GROUNDING CABLE ASSY		
1		1	1		1	1		1	4	647.2201	CROSS ASSY		
1		1	1		1	1		1	3	647.1602	DOUBLER ASSY		
	1	1		1	1		1	1	2	647.1402	CUTTER ASSY (LOWER)		
							1	1	1	647.1401	CUTTER ASSY (UPPER)		
X										647.1309	EC145 T2 FIXED PROVISIONS KIT		
	X									647.1308	EC145 T2 REMOVABLE PROVISIONS KIT		
		X								647.1307	EC145T2 CABLE CUTTERS KIT		
			X							647.1306	FIXED PROVISIONS KIT U CHANNEL		
				X						647.1305	REMOVABLE PROVISIONS KIT U CHANNEL	6	
					X					647.1304	EC145 CABLE CUTTERS KIT U CHANNEL COMPATIBLE	6	
						X				647.1303	FIXED PROVISIONS KIT		
							X			647.1302	REMOVABLE PROVISIONS KIT		
								X		647.1301	EC145 CABLE CUTTERS KIT		
.1309	.1308	.1307	.1306	.1305	.1304	.1303	.1302	.1301	FIND #	PART #	DESCRIPTION	MATL	SPEC.

BOM Table (Restructured)

QTY		PARTS LIST	
NEXT ASSY (S)		ORIGINAL DATE (MO-DA-YR) 07/05/09	
		DRAWN BY P. ROSANO	CHECKED D. BARKER
		DRAWING APPROVAL P. BRAYO	
		CONTRACT NO.	
		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.03 3 PLACE DECIMALS ±.005 ANGLES ±.5°	
		DATE 07/05/09	
		SIZE B	CAGE CODE 07M26
		DWG. NO. 647.1300	REV. E
		SCALE NONE	SHEET 1 OF 10

DART 3030 ENTERPRISE CT., SUITE A
VISTA, CA. 92081
(760) 724-5300

APICAL INDUSTRIES, INC.
dba DART AEROSPACE

EC145 CABLE CUTTERS KIT

RECEIVED

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF DART AEROSPACE. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF DART AEROSPACE IS PROHIBITED.

	4	4		4	4		4	4	51	601.3209	LOCKNUT	MS21042L4	
1	4	5	1	4	5	1	8	9	50	601.2973	LOCKNUT	MS21042-08	
27	19	46	27	19	46	27	18	45	49	601.2943	LOCKNUT	MS21042-3	
	3	3		3	3		3	3	48	601.2375	WASHER		
2	8	10	2	8	10	2	16	18	47	601.2764	WASHER	NAS1149FN832P	
62	42	104	62	42	104	62	40	102	46	601.1607	WASHER	NAS1149F0332P	
1		1	1		1	1		1	45	601.2525	SCREW	MS27039-0807	
4		4	4		4	4		4	44	601.1952	SCREW	MS27039-1-20	
							4	4	43	601.3010	SCREW	MS27039-0810	
	4	4		4	4		4	4	42	601.2988	SCREW	MS27039-0813	
6		6	6		6	6		6	41	601.1365	SCREW	MS27039-1-10	
3		3	3		3	3		3	40	601.2198	SCREW	MS27039-1-07	
	3	3		3	3		3	3	39	601.2999	SCREW		
18		18	18		18	18		18	38	601.2459	SCREW	MS27039C1-06	
	4	4		4	4		4	4	37	601.1622	SCREW	MS27039-1-14	
10		10	10		10	10		10	36	601.2051	SCREW	MS24694C52	
2		2	2		2	2		2	35	601.2823	BOLT	AN3-4A	
1		1	1		1	1		1	34	601.1324	BOLT	AN4CH6A	
	2	2		2	2		2	2	33	601.1874	BOLT	AN3C10A	
	12	12		12	12		16	16	32	601.2826	BOLT	AN3-11A	
	8	8		8	8		8	8	31	601.2638	WASHER	NAS1149F0432P	
	4	4		4	4		4	4	30	601.3002	BOLT	NAS6604-66	
2		2	2		2	2		2	29	647.1811	SPACER		
4		4	4		4	4		4	28	647.2511	NUT		
4		4	4		4	4		4	27	647.2510	SLEEVE		
13		13	13		13	13		13	26	647.1812	SHIM		
4		4	4		4	4		4	25	647.1910	CLIP		
1		1	1		1	1		1	24	647.1810	NOSE DOOR DOUBLER		
1		1	1		1	1		1	23	647.1818	NOSE DOOR SPACER		
2		2	2		2	2		2	22	647.1813	ANGLE		
1		1	1		1	1		1	21	647.1913	TEE		
1		1	1		1	1		1	20	647.1814	GUSSET, LH		
1		1	1		1	1		1	19	647.1815	GUSSET, RH		
1		1	1		1	1		1	18	647.1915	SUPPORT ANGLE		
	2	2		2	2		2	2	17	647.2011	LOWER STRUT		
1		1	1		1	1		1	16	647.1914	BRACKET		
1		1	1		1	1		1	15	647.1816	SUPPORT, LH		
.1309	.1308	.1307	.1306	.1305	.1304	.1303	.1302	.1301	FIND #	PART #	DESCRIPTION	MATL	SPEC.

BOM Table(Restructured)

ORIGINAL DATE 07/06/09		DRAWN BY K. KOHNO		CHECKER D. BARKER	
DRAWING APPROVAL P. BRAVO 08/05/09		CONTRACT NO.			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.03 3 PLACE DECIMALS ±.010 ANGLES ±.5°					
SIZE B	CAGE CODE 07MZ6	DWG. NO. 647.1300	REV. E		
SCALE: NONE			SHEET: 2 OF 10		

DART AEROSPACE 3030 ENTERPRISE CT., SUITE A, VISTA, CA. 92081 (760)-724-5300

APPROVAL REQUIRED BY: DART AEROSPACE

EC145 CABLE CUTTERS KIT

REFERENCE ONLY

100-100000

1 2 3 4 5 6 7 8

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF DART AEROSPACE. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF DART AEROSPACE IS PROHIBITED.

	2	2							89	647.1703	T2 SKID DEFLECTOR ASSY		
	8	8							88	601.3812	LOCK TAB	LN9023A8-1.4544.9	
				2	2				87	647.1702	SKID DEFLECTOR ASSY		
	1	1		1	1				86	647.2113	LOWER RAIL (U CHANNEL KIT)		
				8	8				85	601.3655	WASHER	LN9025-0820K	
	8	8		8	8				84	601.3654	SCREW	LN9037-08018	
1	1	1		1	1				83	647.2112	UPPER U CHANNEL		
	8	8		8	8				82	601.3653	WASHER	93475A270	
	4	4		4	4				81	601.3652	LOCKNUT	93625A300	
	4	4		4	4				80	601.3651	SCREW	91292A080	
	1	1		1	1				79	647.1403	CUTTER ASSY (UPPER U CHANNEL)		
	5	5		5	5				78	601.3650	BOLT	AN3-15A	
REF	REF	REF	REF	REF	REF	REF	REF	REF	77	647.5701	GPS MOUNT KIT		
2		2	2		2	2		2	76	601.1954	SCREW	MS27039-1-17	
	2	2		2	2		2	2	75	647.2010	UPPER STRUT		
1	1	1		1	1	1	1	1	74	601.2045	RTV	LOCTITE 598	
1	1	1		1	1	1	1	1	73	600.1012	SEALANT	PR-1425 CLASS B	
1	1	1		1	1	1	1	1	72	600.0991	MAGNOBOND 6398 PART B		
1	1	1		1	1	1	1	1	71	600.0990	MAGNOBOND 6398 PART A		
4		4	4		4	4		4	70	601.3012	SCREW	MS27039-1-15	
2		2	2		2	2		2	69	601.3004	CAMLOC STUD		
2		2	2		2	2		2	68	601.3005	CAMLOC RETAINER		
2		2	2		2	2		2	67	601.3006	CAMLOC RECEPTACLE		
3 FT.		3 FT.	3 FT.		3 FT.	3 FT.		3 FT.	66	601.3011	P-SEAL		
1.1 FT.		1.1 FT.	1.1 FT.		1.1 FT.	1.1 FT.		1.1 FT.	65	601.3007	GROMMET	MS21266-2N	
2		2	2		2	2		2	64	601.3008	INSERT	NAS1834C3-300	
12		12	12		12	12		12	63	601.2364	RIVET	CR3213-4-8	
16		16	16		16	16		16	62	601.2468	RIVET	CR3213-4-7	
11		11	11		11	11		11	61	601.2991	RIVET	CR3213-4-6	
2		2	2		2	2		2	60	601.1039	RIVET	CR3213-4-2	
8		8	8		8	8		8	59	601.1183	RIVET	CR3213-4-5	
22		22	22		22	22		22	58	601.0790	RIVET	CR3213-4-3	
8		8	8		8	8		8	57	601.2995	RIVET	CR3213-6-6	
4		4	4		4	4		4	56	601.1915	RIVET	CR3213-4-4	
12		12	12		12	12		12	55	601.2207	NUTPLATE RIVET	CCR2645S-3-03	
4		4	4		4	4		4	54	601.1983	NUTPLATE RIVET	CCR2745S-3-03	
12		12	12		12	12		12	53	601.2980	NUTPLATE RIVET	CCR2645S-3-04	
12		12	12		12	12		12	52	600.0795	NUTPLATE	MS21047-3	
.1309	.1308	.1307	.1306	.1305	.1304	.1303	.1302	.1301	FIND #	PART #	DESCRIPTION	MATL	SPEC.

BOM Table (Restructured)

ORIGINAL DATE: 07/01/05
 DRAWN BY: P. ROSANO
 CHECKED BY: D. BARKER
 DRAWING APPROVAL: P. ROSANO
 CONTRACT NO.

UNLESS OTHERWISE SPECIFIED
 DIMENSIONS ARE IN INCHES
 TOLERANCES ARE:
 2 PLACE DECIMALS ±.01
 3 PLACE DECIMALS ±.005
 ANGLES ± 5°

DART AEROSPACE 3030 ENTERPRISE CT., SUITE A, VISTA, CA 92081 (760) 724-5300

APICAL INDUSTRIES, INC. 800 DART AEROSPACE

EC145 CABLE CUTTERS KIT

SIZE: B CAGE CODE: 07M26 DWG. NO: 647.1300 REV. E

SCALE: NONE SHEET: 3 OF 10

REFERENCE ONLY

